

**In the claims:**

Please cancel Claims 10-14 and 17-20.

Please add new Claims 21-40.

1. (Currently Amended) A nucleic acid present in other than its natural environment that encodes a non-aggregating chromo- or fluorescent mutant of an aggregating Cnidarian ~~Cnidarian~~ chromo- or fluorescent protein or mutant thereof.

2. (Currently Amended) The nucleic acid according to Claim 1, wherein said Cnidarian ~~Cnidarian~~ chromo-or fluorescent protein is from a non-bioluminescent Cnidarian ~~Cnidarian~~ species.

3. (Currently Amended) The nucleic acid according to Claim 2, wherein said non-bioluminescent Cnidarian ~~Cnidarian~~ species is an Anthozoan species.

4. (Currently Amended) The nucleic acid ~~a nucleic acid~~ according to Claim 1, wherein said nucleic acid has a nucleotide sequence ~~of residues that is substantially the same as or~~ identical to a nucleotide sequence of at least 10 contiguous nucleotides ~~residues~~ in length of SEQ ID NOS:14; 15; 17; 19; 21; and 23.

5. (Currently Amended) A fragment of the nucleic acid ~~selected~~ according to Claim 1.

6. (Currently Amended) A construct comprising a vector and the nucleic acid ~~a nucleic acid~~ according to Claim 1.

7. (Currently Amended) An expression cassette comprising:
- (a) a transcriptional initiation region functional in an expression host;
  - (b) the nucleic acid ~~a nucleic acid~~ according to Claim 1; and

- (c) and a transcriptional termination region functional in said expression host.

8. **(Original)** A cell, or the progeny thereof, comprising an expression cassette according to Claim 7 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

9. **(Currently Amended)** A method of producing a ~~chromo- and/or~~ **chromo-** **or** fluorescent protein, said method comprising:

growing a cell according to Claim 8, whereby said protein is expressed; and  
isolating said protein ~~substantially free of other proteins.~~

10. – 14. **(Canceled)**

15. **(Currently Amended)** In an application that employs a nucleic acid encoding a chromo- or fluorescent protein, the improvement comprising:  
employing **the nucleic acid** ~~a nucleic acid~~ according to Claim 1.

16. **(Currently Amended)** A kit comprising **the nucleic acid** ~~a nucleic acid~~ according to Claim 1.

17. - 20 **(Canceled)**

21. **(New)** A nucleic acid present in other than its natural environment that encodes a non-aggregating chromo- or fluorescent mutant of an aggregating *Cnidarian* chromo- or fluorescent protein or mutant thereof, wherein said non-aggregating chromo- or fluorescent mutant comprises a mutation in at least one N-terminal residue codon.

22. **(New)** The nucleic acid according to Claim 21, wherein said *Cnidarian* chromo- or fluorescent protein is from a non-bioluminescent *Cnidarian* species.

23. **(New)** The nucleic acid according to Claim 22, wherein said non-bioluminescent *Cnidarian* species is an Anthozoan species.

24. **(New)** The nucleic acid according to Claim 21, wherein said nucleic acid has a nucleotide sequence identical to a nucleotide sequence of at least 10 contiguous nucleotides in length of SEQ ID NOS:14; 15; 17; 19; 21; and 23.

25. **(New)** The nucleic acid according to Claim 21, wherein said nucleic acid has a nucleotide sequence similarity of at least about 80% with a nucleotide sequence selected from the group of sequences consisting of SEQ ID NOS:14; 15; 17; 19; 21; and 23.

26. **(New)** The nucleic acid according to Claim 21, wherein said nucleic acid has a nucleotide sequence identical to a nucleotide sequence selected from the group of sequences consisting of SEQ ID NOS:14; 15; 17; 19; 21; and 23.

27. **(New)** The nucleic acid according to Claim 21, wherein said mutation in at least one N-terminal residue codon is a mutation within about 50 residues of the N-terminus.

28. **(New)** The nucleic acid according to Claim 21, wherein said mutation in at least one N-terminal residue is a basic residue.

29. **(New)** The nucleic acid according to Claim 28, wherein said mutation in at least one N-terminal residue is a substitution of said basic residue for a neutral residue.

30. **(New)** The nucleic acid according to Claim 28, wherein said basic residue is lysine or arginine.

31. **(New)** The nucleic acid according to Claim 21, wherein said mutation in at least one N-terminal residue is a deletion or a substitution.

32. **(New)** The nucleic acid according to Claim 27, wherein said mutation in at least one N-terminal residue codon is a mutation in one of residues 2, 3, 4, 5, 6, 7, 8, 9, or 10.

33. **(New)** The nucleic acid according to Claim 21, wherein said mutation in at least one N-terminal residue is a substitution of a threonine residue for a lysine residue, an alanine residue for an arginine residue, or a glutamic acid residue for a lysine residue.

34. **(New)** A fragment of the nucleic acid according to Claim 21.

35. **(New)** A construct comprising a vector and the nucleic acid according to Claim 21.

36. **(New)** An expression cassette comprising:

- (a) a transcriptional initiation region functional in an expression host;
- (b) the nucleic acid according to Claim 21; and
- (c) and a transcriptional termination region functional in said expression host.

37. **(New)** A cell, or the progeny thereof, comprising an expression cassette according to Claim 36 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

38. **(New)** A method of producing a chromo- or fluorescent protein, said method comprising:

growing a cell according to Claim 37, whereby said protein is expressed; and  
isolating said protein.

39. **(New)** In an application that employs a nucleic acid encoding a chromo- or fluorescent protein, the improvement comprising:

employing the nucleic acid according to Claim 21.

40. **(New)** A kit comprising the nucleic acid according to Claim 21.